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ABSTRACT

The purpose of this publication is to acquaint college students with the basic information needed to successfully access and use the 1970 Census of Population and Housing. Contents present discussions of the following: Can Census Data Help Me?; What Information Does the Census Provide?; For What Areas Are Census Data Reported?; How Are Census Data Released ?; How Do I Find a Particular Data Item?; and Reference Sources. Exercises are provided to reinforce the learning of these basics and to involve the reader in the actual use of the census publications. Exercises include Learning Census Geography, Learning Subjects Collected in the 1970 Census, Learning to Read Tables, and Finding the Data and Using It. Addresses and telephone numbers of U.S. Department of Commerce District Offices are included. (Author/RM)

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A Student's Introduction To Accessing The 1970 Census

With Exercises on:

SUBJECTS
GEOGRAPHY
PUBLICATION MEDIA
REFERENCE SOURCES

U.S. DEPARTMENT OF COMMERCE — BUREAU OF THE CENSUS

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General direction for this pamphlet was provided by Paul T. Zeisset, Chief, Data Access and Use Staff, Data User Services Division. Significant contributions for the pamphlet contents were made by Leon Clark, University of Massachusetts, Amherst, Mass., and Parker G. Marden, St. Lawrence University, Canton, N.Y.

The purpose of this publication is to acquaint new users of the 1970 Census of Population and Housing with the basic information needed to successfully access and use this data base. The major topics covered include the publication program, census geographic concepts, subject data content, and reference sources. Exercises are provided to reinforce the learning of these basics and to involve the reader in the actual use of 1970 census publications. This publication is the first to be released as part of the Census Bureau's college curriculum support project. Comments and inquiries are encouraged. Write to the Data User Services Division, Bureau of the Census, Washington, D.C. 20233.

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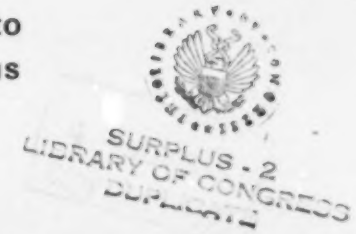
A Student's Introduction to Accessing the 1970 Census



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A STUDENT'S INTRODUCTION TO ACCESSING THE 1970 CENSUS OF POPULATION AND HOUSING

Can Census Data Help Me?

Probably. Census data are put to a wide variety of uses. For example, researchers use the data to study an area's social, economic, and demographic variables such as age structure, migration patterns, occupational and industrial structure, and income distribution. Those interested in community action study characteristics of the population and housing to evaluate the impact of programs (highway location, urban renewal, etc.) or to document the need for programs (playgrounds, day-care centers, equal employment opportunity, aid to the elderly, etc.). Public officials are interested in population shifts, change in the average family size, concentrations of the very young or very old and other characteristics of their areas which affect requirements for public services. Business people also find a knowledge of such characteristics helpful in marketing their products. 1/ In the 1970 Census, information was collected on subjects such as age, race, education, income, ownership or rental of houses and apartments, and number of rooms in houses and apartments (see figure 2 on page 11).

While you cannot obtain information from the Census Bureau about specific individuals or homes because this is forbidden by law, you can obtain summary information about geographic areas such as city blocks, groups of blocks, cities, counties, and States. By "summary information" we mean counts of persons or housing units in categories with particular characteristics, such as the number of men 25 to 34 years old, families headed by females, housing units renting for $150 to $200 per month, or persons residing in a certain city.

Consider a few examples of the use of summary data:

- A business person interested in locating a new specialty store will want to find an area with a high proportion of likely customers, such as families with moderate incomes, single young adults, or college graduates.

- A school administrator may want figures for different parts of his city on the number of children under 5 years old for use in planning adequate future facilities, or the number of adults who have not completed high school in order to choose neighborhoods for adult education classes.

- A neighborhood citizens' group, interested in improving services provided by the city, may want data on the number of children in various age groups to support requests for recreational facilities or on the number of working mothers with children under 6 to indicate the need for child day-care centers.

1/ Census Data for Community Action and Measuring Markets (cited in the reference sources, page 10) illustrate some uses of census data.

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So, if you need to know the characteristics of the people and housing units within a geographic area or want to know where people or housing units with particular characteristics are located, more than likely there are census data that can help.

What Information Does the Census Provide?

The information available from the 1970 Census is derived from either questions asked of the entire population or a sample of the population. The questions asked of everyone or about every housing unit are called "100 percent" or "complete-count" questions. They concern basic information on such subjects as age, sex, race, property value or rent, and number of rooms. This information is needed to count everyone accurately and to make possible the publication of some data for very small areas such as city blocks.

One household in every five throughout the country answered sample questions in addition to the 100 percent questions answered by everyone. The exact questions which were asked depended on which one of two sample questionnaires the household received. One type of sample questionnaire went to 15 percent of all households; the other went to 5 percent of all households and in some cases the same question appeared on both sample questionnaires. Thus there were three samples for which responses were obtained: 20, 15, and 5 percent. The information requested concerned such subjects as income, number of school years completed, occupation, place of work, heating fuel used, and number of automobiles.

The subjects covered in the 1960 and 1970 censuses are shown in figure 2 (page 11) which indicates whether they were asked on a complete-count or sample basis. There was little difference in questionnaire content between 1960 and 1970 because of the importance of having comparable data for assessing changes in population and housing characteristics which occurred during the decade.

Tabulations of data from the sample questions are done primarily for areas with populations of at least two or three thousand. A population base of this size or larger helps to improve the reliability of the statistics, which are naturally subject to some chance variation since they are estimates based on a sample. On the other hand, tabulations of data from the 100 percent questions are prepared for areas as small as city blocks, averaging 100 or so in population, since complete-count data are not subject to sampling variability.

For What Areas Are Census Data Reported?

Data are presented for the entire country in printed reports and computer tapes. But the Census Bureau cannot tabulate data for all the blocks, streets, or other small areas in the exact combinations which might be desired. Data for school districts or police precincts, for example, are not prepared in regular Census Bureau operations.

Through its regular tabulation program, the Bureau prepares data summaries (presented in printed reports, computer tapes, and/or microform products) for the following areas as they were defined for census purposes as of April 1, 1970 (also see figures 3 and 4, pages 12,13):

(1) Governmental units of the Nation, including States, congressional districts, counties, minor civil divisions (e.g., towns, precincts, and townships),[2/] incorporated places (e.g., cities and villages), and wards in some cities. Both 100 percent and sample data summaries are prepared for these areas, except for wards (population counts only).

(2) Statistical areas (both 100 percent and sample data unless otherwise indicated):

- Regions/divisions. There are four regions (West, South, Northeast, and North Central) defined for the U. S., each composed of two or more divisions. Divisions are areas composed of groupings of contiguous States.

- Standard Metropolitan Statistical Areas. In 1970 an SMSA comprised a county containing a central city (or twin cities) of 50,000 or more plus contiguous counties which were socially and economically integrated with the central county. All counties not in SMSA's are termed "nonmetropolitan."

- Urbanized Areas. UA's comprise a central city of an SMSA plus the surrounding closely settled urban fringe ("suburbs").

- Urban/rural. The urban population comprises all persons living in urbanized areas and in places of 2,500 or more outside urbanized areas. The rural population is the complement.

- Unincorporated Places. A concentration of population which is not incorporated. Only unincorporated places of 1,000 or more inhabitants are shown in the reports.

- Census Tracts. Subdivisions of SMSA's averaging 4,000 population, covering all SMSA's for 1970.

- Enumeration Districts. ED's are administrative divisions set up by the Census Bureau to take the census in areas where enumerators were used, averaging 800 population. Not in printed reports.

2/ In 21 States minor civil divisions (MCD's) are not adequately defined for reporting census statistics. To take their place, Census and local officials have designed census county divisions (CCD's), and census statistics are reported for these CCD's.

- Block Groups. BG's are groups of city blocks, averaging 1,000 population and are the equivalent of enumeration districts in 145 of the large metropolitan areas where the census was taken by mail in 1970. Not in printed reports.

- Blocks. City blocks are areas generally bounded by four streets or some other physical boundary, defined in urbanized areas and in additional cities which contracted with the Bureau for block tabulations. Only 100 percent data.

How Are Census Data Released?

Printed Reports

Printed reports (see figures 5, 6, 7, pages 14-17) have long been the most common means of releasing census data. If you do not require information in great detail for a large number of areas, the printed reports will probably be the most convenient and readily available source for you The data presented in 1970 census reports are similar in kind and quantity to the data contained in reports resulting from the 1960 Census. Your local library may have the reports you need, or you may purchase copies by writing Subscriber Services Section (Publications), Bureau of the Census, Washington, D. C. 20233 or U. S. Department of Commerce District Offices (see back cover).

The census data contained in printed reports are arranged in tables. Population and housing characteristics for specified geographic areas are reported, such as the number of rented housing units in a block, the number of families below specified income levels in a census tract, or the number of persons who have had vocational training in a city or county. An example of a table such as you will find in 1970 Census printed reports is shown in figure 5, page 14.

The Census Bureau releases several different series of reports, and in most series, there is one report for each State and a U. S. Summary. Some contain data principally about people and families; others contain data primarily about housing. You will find selected 1970 Census report series and the geographic areas covered briefly described in figure 7. The Index to Selected 1970 Census Reports will help you find specific data items in the reports and tables (cited on page 9).

Microfiche

Microfiche copy of the printed reports can be obtained from the Bureau of the Census Library, Washington, D.C., 20233. The microfiche (4"x 6" cards of microfilm containing 97 images of report pages) dramatically reduces the amount of storage space needed. Request order forms from the Subscribers Services Section (Publications) of the Census Bureau.

Summary Tapes

Many census data users will be able to find the information they need in the Bureau's printed reports. But if frequent and extensive use is planned, census summary data on computer tapes ("summary tapes") may be the most reasonable approach because of the speed and relative convenience of machine processing. Also, on the tapes there are many cross-classifications, greater detail, and more geographic areas which it was not feasible to publish and thus, some users may find the tapes essential to meet their data requirements.

Census summary tapes (see figure 6, page 15) may be purchased from the Bureau at $80 per reel. Six series of summary tapes(called "counts") are available, involving about 2,000 reels of computer tape if all files were obtained. Summary tape users also need maps and documentation to interpret the geographic and other codes on the tape. The Index to 1970 Census Summary Tapes is organized alphabetically by subject variable and includes references to all tabulations from all six counts of summary data. In considering the use of computer tapes, it is important to keep in mind that there will be expenses for personnel time, programming,and computer operation. As an alternative, users may wish to purchase data services from other organizations which already have the tapes. Information on these "Summary Tape Processing Centers" may be obtained by writing the Data User Services Division, Bureau of the Census, Washington, D.C. 20233.

Microfilm

Microfilm of some of the computer summary tape data (all 1st Count tabulations and 5th Count county and MCD/CCD tabulations) are available from Data User Services Division, Bureau of the Census, Washington, D.C. 20233. These tabulations are an especially useful source of data for nonmetropolitan county sub-divisions.

How Do I Find A Particular Data Item From the 1970 Census?

There are several publications which will help you find a particular data item in the 1970 Census. Figure 1 (page 7) outlines a systematic approach for accessing the data. The Index to Selected 1970 Census Reports and the Index to 1970 Census Summary Tapes (referred to as "Indexes" in the following—ordering information on page 9) will help you to determine whether the data are available in the 1970 Census and in the form needed for your particular problem. These publications also have a "Cross-Reference Guide" which will help you learn census terminology (for example, you may be interested in data on "senior citizens" but the census does not use this term; the cross-reference guide refers you to a subject heading which is age specific—such as "age 65 and over"). The following outline provides guidance for locating data in the 1970 Census products with and without the aid of the Indexes. The outlines are keyed to the diagram in figure 1.

If you do not have access to the Indexes, use the following sources for the steps:

Steps	Reference Sources
B. Data items collected and concept definitions in 1970 Census	Figure 2, page 11 Data Access Description #14 1970 Census Users' Guide Appendix B of PC(1) and HC(1) reports
C. Geographic definitions	Data Access Description #33 Appendix A of PC(1) and HC(1) reports
D. Locating tables with desired subjects and geographic areas.	Figure 6 (page 15) to determine report number or summary tape count; to locate tables, use Table Finding Guide at front of most reports.

If you do have access to the Indexes, the following outlines a more comprehensive approach to finding a particular data item:

A. State the research problem in terms of desired geographic area, subjects, and how they are cross-classified.

B. To see if the data item is collected in the census, check the "cross-reference guide" in the Index to Selected 1970 Census Reports for correct census terminology. Then refer to figure 2 or the questionnaire. Note whether the data item is complete count (100%) or sample data.

1. If the data item is collected, skip to C.

2. If the data item is not collected:

   a. Can you alter your requirements to fit what exists?

   b. Are there other government data sources? (Check Statistical Abstract, County and City Data Book, Census Bureau Catalog, Guide to Programs and Publications: Subjects and Areas, American Statistics Index, Federal Statistical Directory, Directory of Federal Statistics for States, Directory of Federal Statistics for Local Areas, and Directory of Non-Federal Statistics for States and Local Areas.)

C. Is the geographic area tabulated? (Refer to appendix of Data Access Description #33 for definitions).

Figure 1. **Steps for Finding a Particular Cross-Classification in the 1970 Census of Population and Housing**

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1. If the geographic area is tabulated, go to D. (Note: refer to maps for definitions of specific geographic areas. Sources for maps are given in Data Access Descriptions #33 and #39).

2. If the geographic area is not tabulated:

   a. Can you alter your requirements to fit what exists?

   b. Can you use blocks, ED's/BG's, census tracts, or other geographic units as building blocks for desired area?

D. Are the data items and the geographic areas cross-classified as you desire? Refer to the Indexes to the printed reports and summary tapes or use figure 6 to determine which report to check and then the table finding guide in many of the publications.

1. If the cross-classification is what you desire, go to E.

2. If the cross-classification is not found in the Indexes, can it be found in the subject reports or other Census reports (refer to Data Access Description #39 or the 1974 Census Catalog Appendix A)? If no, can you alter your requirements? Also check with the Census Bureau to explore other alternatives (see page 31 for addresses and phone numbers).

E. Are the categories as you need them (e.g., age groups, income distribution groups, etc.)? Check specific reports or tape documentation (1970 Census Users' Guide, Part II; Data Access Description #36 for 5th Count). Note that indentations in table stubs usually mean a subdivision within another variable.

1. If yes, go to F.

2. If no:

   a. Can you alter your requirements to fit what exists?

   b. Check with the Census Bureau for other alternatives (see page 31 for addresses and telephone numbers).

F. Good! You're all set to work! Be sure to check the concept definitions, note whether the data are subject to sampling variability, and check the evaluation reports, PHC(E), (described on figure 7 page 17) or inquire from the Census Bureau about whether there are other limitations on the specific data you are using.

Reference Sources

For 1970 Census Data:

Index to Selected 1970 Census Reports.* This is an exhaustive index to data tables in the following report series: PC(1), HC(1), HC(2), HC(3), PHC (1), and PHC(2) [note that the subject reports are not included in the Index]. The Index consists of a "cross-reference guide" to census terminology and computer-generated index entries listed alphabetically by subject. Each entry lists the report and table number, geographic areas, and specific subject items. (388 pages at $3.70).

Index to 1970 Census Summary Tapes.* This is an exhaustive index to data tables in the summary tapes, First through Sixth Counts. It has features corresponding to the Index to Selected 1970 Census Reports. (216 pages at $2.60).

1970 Census Users' Guide.* This guide is a principal resource for information about the 1970 Census and is organized into two parts:
Part I describes census concepts and procedures and has a Census Users' Dictionary (162 pages at $2.35);
Part II includes the technical documentation for the First through Fourth Count summary tapes (376 pages at $4.40). Note: Documentation for Fifth and Sixth Count tapes are available from Data User Services Division of the Bureau of the Census, address on page 31.

Data Access Description (DAD). DAD's give detailed explanations relevant to the use of and access to data from various census products. DAD's related to the 1970 Census include:

- DAD 14: Items Contained in the 1970 Census of Population and Housing
- DAD 33: 1970 Census Geography: Concepts, Products, and Programs
- DAD 39: Reports Related to the 1970 Census of Population and Housing

A complete list of DAD's is available by writing Data User Services Division of the Bureau of the Census (address on page 31).

For Other Programs/Products of the Census Bureau:

Census Catalog.* This is a complete listing of all publications during a given time period; it is published quarterly and is cumulated annually. It covers both publications and unpublished data in print and on computer tape. (Subscription price: $14.40; single copies vary in price).

Guide to Programs and Publications: Subjects and Areas, 1973. This is an annotated listing of the programs and reports issued by the Census Bureau during the 1960's and 1970's. It includes the subjects, areas, frequency, and scope of the Census Bureau's programs and publications in agriculture, the economic censuses and surveys, geographic reports and maps, governments, population, housing, statistical abstract and supplements, and studies of foreign countries. (227 pages at $2.45)

Data User News. This is a monthly publication designed to inform census users about new activities and the use of products and services of the Census Bureau. (Available by subscription. Ordering information on page 31).

For Ideas on Uses of Census Data:

Measuring Markets.* This publication describes the usefulness of government data in market research. It is divided into four parts: (1) describes some of the measureable characteristics of markets; (2) examines various types of statistics; (3) presents case studies of uses of data in market measurement; and (4) bibliography. (71 pages at $1.35).

Census Data for Community Action. Illustrates the use of census data in neighborhoods of metropolitan areas using census reports. Available from Subscriber Services Section (Publications), Bureau of the Census, Washington, D. C. 20233 (19 pages at $0.50).

Inquiry Service for Data Users

Through its Data User Services Division in Washington, D.C., and through its regional offices in twelve major cities, users can ask questions about Census products and services. See addresses on page 31.

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* Publications available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Figure 2. Content and Coverage Comparison, 1960-1970 Decennial Censuses

The sample percentages for population and housing items included in the 1970 census in comparison with the items in the 1960 census are shown below.

Population Items	1960	1970
Relationship to head of household	100%	100%
Color or race	100	100
Age (month and year of birth)	100	100
Sex	100	100
Marital status	100	100
State or country of birth	25	20
Years of school completed	25	20
Number of children ever born	25	20
Employment status	25	20
Hours worked last week	25	20
Weeks worked last year	25	20
Last year in which worked	25	20
Occupation, industry, and class of worker	25	20
Activity 5 years ago	-	20
Income last year:		
Wage and salary income	25	20
Self-employment income	25	[1]20
Other income	25	[2]20
Country of birth of parents	25	15
Mother tongue	25	15
Year moved into this house	25	15
Place of residence 5 years ago	25	[3]15
School or college enrollment (public or private)	25	15
Veteran status	25	15
Place of work	25	[4]15
Means of transportation to work	25	15
Mexican or Spanish origin or descent	-	5
Citizenship	-	5
Year of immigration	-	5
When married	25	[5]5
Vocational training completed	-	5
Presence and duration of disability	-	5
Occupation-industry 5 years ago	-	5

Housing Items	1960	1970
Number of units at this address	-%	[6]100%
Telephone	25	[7]100
Access to unit	100	100
Kitchen or cooking facilities	100	-
Complete kitchen facilities	-	100
Condition of housing unit	100	-
Rooms	100	100
Water supply	100	100
Flush toilet	100	100
Bathtub or shower	100	100
Basement	25	100
Tenure	100	100
Commercial establishment on property	100	100
Value	100	100
Contract rent	100	100
Vacancy status	100	100
Months vacant	25	100
Components of gross rent	25	20
Heating equipment	25	20
Year structure built	25	20
Number of units in structure and whether a trailer	20	20
Farm residence (acreage and sales of farm products)	25	20
Land used for farming	25	-
Source of water	20	15
Sewage disposal	20	15
Bathrooms	20	15
Air conditioning	5	15
Automobiles	20	15
Stories, elevator in structure	20	5
Fuel--heating, cooking, water heating	5	5
Bedrooms	5	5
Clothes washing machine	5	5
Clothes dryer	5	5
Dishwasher	-	5
Home food freezer	5	5
Television	5	5
Radio	5	5
Second home	-	5

[1] Single item in 1960; two-way separation in 1970 by farm and nonfarm income.
[2] Single item in 1960; three-way separation in 1970 by social security, public welfare, and all other receipts.
[3] This item is also in the 5-percent sample but limited to State of residence 5 years ago.
[4] Street address included in 1970.
[5] In 1960, whether married more than once and date of first marriage; in 1970, also includes whether first marriage ended by death of spouse.
[6] Collected primarily for coverage check purposes.
[7] Required on 100-percent for field followup purposes.

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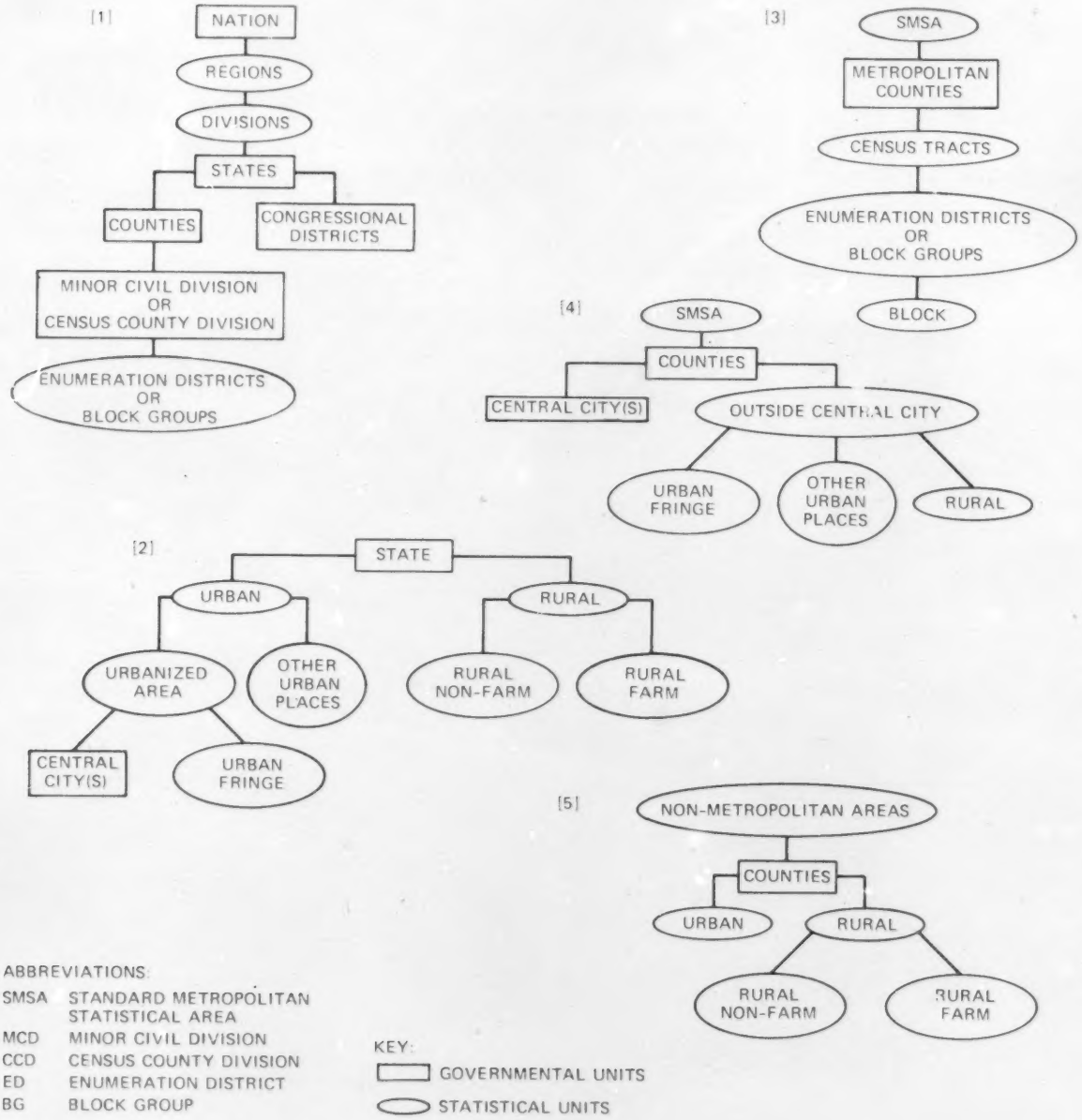
Figure 3 Census Bureau Geographic Units—Their Hierarchical Relationships

As shown below, governmental and statistical definitions of geographic areas intermingle; e.g., SMSA's are defined according to county boundaries. The chart also demonstrates that urban and rural areas are components of both metropolitan and nonmetropolitan areas. Most nonmetropolitan counties have urban areas and most SMSA's have some rural areas.



ABBREVIATIONS:

SMSA	STANDARD METROPOLITAN STATISTICAL AREA
MCD	MINOR CIVIL DIVISION
CCD	CENSUS COUNTY DIVISION
ED	ENUMERATION DISTRICT
BG	BLOCK GROUP

KEY:

- ▭ GOVERNMENTAL UNITS
- ⬭ STATISTICAL UNITS

Figure 4. Geographic Subdivisions of an SMSA

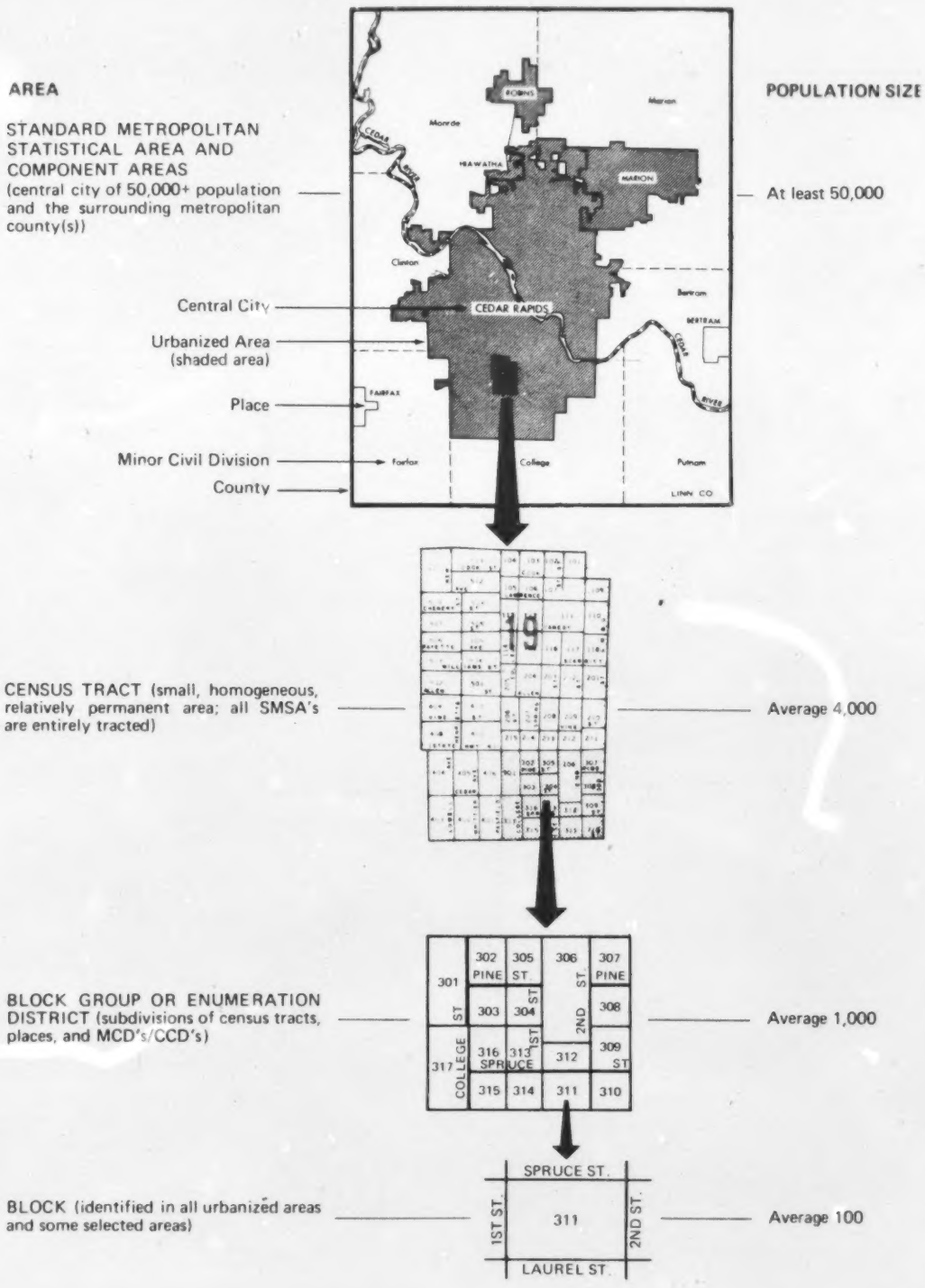


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Figure 5. Sample Table From "General Social and Economic Characteristics" for the State of Maryland (PC(1)-C22)

Social and Labor Force Characteristics for places of 2,500 to 10,000: 1970

Places	Calverton (U)	Capitol Heights	Carmody Hills-Pepper Mill Village (U)	Chapel Oaks-Cedar Heights (U)	Chester-town	Cheverly	Colesville (U)	Columbia (U)	Coral Hills (U)	Crisfield
PLACE OF BIRTH										
Total population	**6 535**	**2 713**	**6 295**	**6 020**	**3 476**	**6 665**	**9 438**	**8 701**	**7 252**	**3 075**
Foreign born	**346**	**62**	**15**	**9**	**36**	**307**	**408**	**250**	**143**	**-**
Native	**6 189**	**2 651**	**6 280**	**6 011**	**3 440**	**6 358**	**9 030**	**8 451**	**7 109**	**3 075**
Born in State of residence	2 220	816	1 908	1 780	2 147	1 990	2 615	2 963	2 024	2 579
Born in different State	3 777	1 545	3 494	2 788	1 099	4 035	6 069	5 106	4 159	385
Northeast	1 021	135	184	184	575	1 051	1 892	2 200	455	121
North Central	483	90	51	138	104	497	957	995	215	8
South	2 147	1 309	3 165	2 440	391	2 381	2 893	1 704	3 421	242
West	126	11	94	26	29	106	327	207	68	14
Born abroad, at sea, etc.	51	18	40	29	10	65	113	144	58	10
State of birth not reported	141	272	838	1 414	184	268	233	238	868	101
RESIDENCE IN 1965										
Total population, 5 years old and over	**5 682**	**2 499**	**5 471**	**5 412**	**3 272**	**6 196**	**8 572**	**7 462**	**6 408**	**2 904**
Same house	1 777	1 287	1 012	3 131	1 499	3 932	2 990	647	2 177	1 543
Different house in United States	3 675	960	2 940	1 623	1 583	1 866	4 900	6 077	2 958	1 234
Same county	1 440	372	676	376	528	1 107	1 930	287	561	993
Different county	2 235	588	2 264	1 247	1 055	759	2 970	5 790	2 397	241
Same State	1 296	12	131	39	439	128	932	2 658	119	176
Different State	939	576	2 133	1 208	616	631	2 038	3 132	2 278	65
Northeast	219	10	64	87	309	126	647	1 283	77	10
North Central	49	-	-	64	86	47	205	721	57	-
South	589	566	2 022	957	152	374	1 041	974	2 071	55
West	82	-	47	100	69	84	145	154	73	-
Abroad	108	94	129	14	7	113	280	271	11	13
Moved, 1965 residence not reported	122	158	1 390	644	183	285	402	467	1 262	114
SCHOOL ENROLLMENT										
Percent enrolled, 3 to 34 years old	**61.5**	**61.5**	**51.9**	**48.2**	**61.0**	**60.5**	**73.0**	**53.7**	**58.1**	**60.4**
3 and 4 years old	35.0	-	17.5	13.5	-	17.9	48.7	39.4	16.6	...
5 and 6 years old	93.0	68.2	78.5	79.8	...	97.2	99.9	87.8	71.3	84.8
7 to 13 years old	99.1	99.9	93.7	93.7	96.0	99.4	97.3	99.9	96.6	99.9
14 and 15 years old	96.8	99.9	86.4	95.0	...	89.2	96.8	98.8	84.0	82.9
16 and 17 years old	99.9	...	93.7	94.0	...	91.8	96.4	99.9	93.8	99.9
18 and 19 years old	87.5	...	78.5	48.9	90.1	68.6	71.9	79.0	60.5	...
20 and 21 years old	63.0	...	29.7	6.6	69.7	44.7	87.7	38.8	26.7	-
22 to 24 years old	17.2	...	3.1	1.0	33.9	13.5	28.7	19.5	11.1	...
25 to 34 years old	12.1	2.6	5.3	5.4	4.8	8.9	10.3	8.9	8.2	-
YEARS OF SCHOOL COMPLETED										
Total persons, 25 years old and over	**3 274**	**1 357**	**2 658**	**3 106**	**1 746**	**3 618**	**4 685**	**4 269**	**3 637**	**1 884**
No school years completed	10	16	18	38	8	-	58	-	37	35
Elementary: 1 to 4 years	10	67	54	166	92	39	31	-	89	157
5 to 7 years	59	212	200	409	262	141	112	40	363	486
8 years	58	164	170	244	120	173	111	73	335	181
High school: 1 to 3 years	341	382	699	820	442	523	328	236	957	642
4 years	1 287	425	852	955	304	1 337	1 297	912	1 200	216
College: 1 to 3 years	542	51	299	218	257	664	946	838	372	119
4 years or more	967	40	366	256	261	741	1 802	2 170	284	48
Median school years completed	12.9	10.7	12.2	11.5	11.7	12.7	14.3	16.0	12.0	9.4
EMPLOYMENT STATUS										
Male, 16 years old and over	**1 912**	**787**	**1 596**	**1 946**	**1 275**	**2 253**	**2 737**	**3 515**	**2 187**	**960**
Labor force	1 647	654	1 380	1 553	868	1 855	2 369	2 327	1 853	731
Percent of total	86.1	83.1	86.5	79.8	68.1	82.3	86.6	92.5	84.7	76.1
Civilian labor force	1 643	639	1 318	1 525	854	1 840	2 339	2 283	1 779	720
Employed	1 640	626	1 318	1 467	828	1 810	2 277	2 257	1 750	627
Unemployed	3	13	-	58	26	30	62	26	29	93
Percent of civilian labor force	0.2	2.0	-	3.8	3.0	1.6	2.7	1.1	1.6	12.9
Not in labor force	265	133	216	393	407	398	368	188	334	229
Under 65 years	239	76	199	290	300	288	289	138	216	96
65 years and over	26	57	17	103	107	110	79	50	118	133

Figure 6. Geographic Areas Summarized in 1970 Census Data Products

Geographic area	Complete Count (100%) Data Only										Complete Count and Sample Data								
	First count				Second count				Third count		Fourth count				Fifth count		Sixth count		
	Summary tape	Microfilm	PC(1)-A[1]	HC(VI)[1]	Summary tape	PC(1)-B[1]	HC(1)-A[1]	PHC(1)[1]	Summary tape	HC(3)[1]	Summary tape[2]	PC(1)-C[1]	HC(1)-B[1]	PHC(1)[1]	Summary tape	Microfilm	Summary tape[2]	PC(1)-D[1]	HC(2)[1]
Blocks									x	x									
Enumeration districts or blockgroups	[4]A	x													x				
Census tracts					[4]A			x	([5])		A			x	x				
Minor civil divisions or census county divisions	B	x	x		B	x					B				x[3]	x			
All places[6]	B	x	x																
Places > 1,000 only[6]					B	x	x												
Places > 2,500 only[6]											C	x	x						
Places > 10,000 only[6]				x															
Counties	B	x	x	x	B	x	x				C	x	x			x	[7]x		
Urban/rural parts of counties			x		B	x					C	x							
Standard metropolitan statistical areas	B	x		x	B	x	x	x			C	x	x				x	x	x
Urbanized areas of SMSA's	B	x	x		B	x	x				C	x	x						
Components of SMSA's					B			x			C						[7]x	x	x
Congressional districts	B	x																	
State	B	x	x	x	B	x	x				C	x	x				x	x	
ZIP codes															x				

[1] Titles of these reports are given on Fig. 7 and described in Data Access Description No. 39.
[2] On the 4th and 6th Counts, population and housing data appear on separate files.
[3] MCD/CCD summaries are given only in counties with no census tracts.
[4] The 1st, 2nd, and 4th Counts have files designated A and B or A, B, and C.
[5] Tract totals appear for only that part of the tract which is covered by block summaries.
[6] Places include all incorporated places and unincorporated places of 5,000 or more in urbanized areas or of 1,000 or more elsewhere.
[7] Sixth Count tapes provide data for metropolitan counties, central cities, and other cities over 50,000 population. Sixth Count housing files also present data for nonmetropolitan counties of 50,000+.

00019

Figure 7 Summary of Major 1970 Census Reports

Type of output	Title	Description	Geographic area	Unit of issue
Advance Series				
POPULATION: PC(V1)	Final Population Counts.....	Official population counts.	States, counties, subdivisions, all incorporated places, unincorporated places of 1,000+.	United States; each State; District of Columbia.
PC(V2)	General Population Characteristics	Data on age, sex, race, relationship to household head.	States, SMSA's, counties, places of 10,000+ population.	United States; each State; District of Columbia.
HOUSING: HC(V1)	General Housing Characteristics...	Selected data on 100-percent housing subjects.	States, SMSA's, counties, places of 10,000+ population.	United States; each State; District of Columbia.
Final Series				
POPULATION: PC(1)	Volume I, Characteristics of the Population.....	This volume will consist of separate reports described in Series PC(1)-A through PC(1)-D below.	(See Series PC(1)-A through PC(1)-D below.)	
PC(1)-A	Number of Inhabitants.....	Final official population counts.	States, counties (by urban-rural residence), SMSA's, urbanized areas, county subdivisions, all incorporated places, unincorporated places of 1,000+ population.	United States; each State; District of Columbia; Puerto Rico; Guam; Virgin Islands; American Samoa; Canal Zone; Trust Territory of the Pacific Islands.
PC(1)-B	General Population Characteristics	Data on age, sex, race, marital status, and relationship to head of household (100% population subjects).	States, counties (as above), SMSA's, urbanized areas, county subdivisions, places of 1,000+ population.	
PC(1)-C	General Social and Economic Characteristics.....	Data on population subjects collected on a sample basis.	States (by urban, rural-nonfarm, and rural-farm residence), counties, SMSA's, urbanized areas, places of 2,500+ population.	United States; each State; District of Columbia; and Puerto Rico.
PC(1)-D	Detailed Characteristics.....	Data on most population subjects collected on a sample basis, presented in detail and cross-classified by age, race, and other characteristics.	States (by urban, rural-nonfarm, and rural-farm residence), SMSA's, large cities.	
PC(2)	Volume II, Subject Reports.....	Detailed information and cross-relationships for selected population characteristics.	United States; regions; for a few reports, States and SMSA's.	Selected subjects.
PC(S1)	Supplementary Reports.....	Open series presenting miscellaneous types of population data such as special compilations and selected tables.	United States; some by State and SMSA's, counties, and places of 2,500+ population.	Selected subjects.
HOUSING: HC(1)	Volume I, Housing Characteristics for States, Cities, and Counties.	This volume consists of the separate reports described in Series HC(1)-A and HC(1)-B below.	(See Series HC(1)-A and HC(1)-B below.)	
HC(1)-A	General Housing Characteristics...	Data on the housing subjects collected on a 100% basis.	States, counties, SMSA's by urban-rural parts, urbanized areas, places of 1,000+ population.	United States; each State; District of Columbia; Puerto Rico; Guam; Virgin Islands; American Samoa; Canal Zone; Trust Territory of the Pacific Islands.
HC(1)-B	Detailed Housing Characteristics..	Data on the housing subjects collected on a sample basis.	States, counties (by urban, rural-nonfarm, and rural-farm parts), SMSA's, urbanized areas, places of 2,500+ population.	United States; each State; District of Columbia; and Puerto Rico.
HC(2)	Volume II, Metropolitan Housing Characteristics.....	Data covering most of the 1970 census housing subjects in considerable detail and cross-classification.	SMSA's and their component large cities.	United States; each SMSA.
HC(3)	Volume III, Block Statistics.....	Selected data, 100% population and housing subjects.	Blocks.	Each urbanized area; contract block statistics areas by State.
HC(4)	Volume IV, Components of Inventory Change.....	Data on components of change based on a sample survey conducted in late 1970 and early 1971.	Fifteen SMSA's, separately for central city and balance of SMSA	United States and regions; each of 15 SMSA's

020000

	HC(5)	Volume V, Residential Finance.....	Data on financing characteristics of homeowner properties and rental and vacant properties. Based on a sample survey conducted in early 1971.	United States, regions, presented by size of place and by type of area.	One report.
	HC(6)	Volume VI, Plumbing Facilities and Estimates of Dilapidated Housing.	Data on plumbing facilities reported in the census and estimates of dilapidation.	United States, regions, divisions, States, SMSA's, central cities and other cities of 50,000+ population, and constituent counties.	One report.
	HC(7)	Volume VII, Subject Reports.....	Detailed information and cross-classifications for selected housing characteristics.	United States, regions; for some reports, States and SMSA's.	Selected subjects.
	HC(S1)	Supplementary Reports.....	Open series presenting miscellaneous types of housing data such as special compilations and selected tables.	United States, regions, divisions, States, urbanized areas, Congressional districts, SMSA's, urbanized areas, counties, places of 2,500+ population, tracts.	Selected subjects.
JOINT POPULATION-HOUSING:	PHC(1)	Census Tract Reports.....	Data for most 1970 census population and housing subjects.	SMSA's by census tract.	Each SMSA.
	PHC(2)	General Demographic Trends for Metropolitan Areas, 1960 to 1970.	Comparative 1960 and 1970 data on population count, and selected 100% population and housing subjects.	State, counties (population counts only), SMSA's and their central cities and constituent counties.	United States, each State, District of Columbia.
	PHC(3)	Employment Profiles of Selected Low-Income Areas.....	Data on social and economic characteristics of residents of low-income areas based on sample surveys conducted during late 1970 and early 1971.	Selected poverty neighborhoods in cities.	Sixty reports for 31 cities; 1 report each for 7 rural areas.
METHODOLOGICAL REPORTS:	PHC(E)	Evaluation Reports.....	Open series presenting results of the 1970 census evaluation program.	United States	
	PHC(R)	Procedural Reports.....	Open series presenting information on administrative and methodological aspects of the 1970 census, including a comprehensive procedural history.		
		Other assorted titles.....	Includes technical papers, working papers, and coding manuals.		
OTHER REPORTS:	GE40	Census Tract Papers.....	Open series; papers on small-area research.		
	GE60	Computerized Geographic Coding....	Open series.		
	GE50	United States Maps.....	Open series.	United States; counties.	Selected subjects.
	GE70	United States Maps.....	Open series.	United States; counties.	Selected subjects.
		Index to 1970 Census Summary Tapes	Subject index to 1-6th summary tape counts.		
		Index to Selected 1970 Census Reports.....	Subject index to PC(1), HC(1,2,3), and PHC(1,2).		
		1970 Census Users' Guide.....	Description of census concepts and procedures with census users' dictionary.		
		Assorted titles.....	Documentation to computerized files.		
		Data Access Descriptions.....	Papers on specific 1970 census data products.		

EXERCISES

(Answers begin on page 27)

Exercise I. LEARNING CENSUS GEOGRAPHY

Part A—Definitions

Census geography is described on pages 2-4 and 12-13. Match the descriptions below with the correct geographic areas from the list on the next page.

Answers	Geographic Area Descriptions
1._____	The smallest area for which 1970 Census data are available (but only complete count population and housing items). Published in HC(3) report series for all urbanized areas and in places which contracted for publication of data at this level.
2._____	A statistically defined subdivision of a metropolitan area and commonly used by planners. Published for all SMSA's defined at the time of the 1970 Census in report series PHC(1).
3._____	Subdivisions of census tracts and county subdivisions (MCD/CCD) assigned to enumerators for collecting questionnaires. These are the smallest geographic areas to be used as building blocks outside of urbanized areas. Not in printed reports.
4._____	A statistically defined area made up of a central city plus the surrounding closely settled urban fringe (sometimes called "suburbs").
5._____	West, South, Northeast, North Central (four major groupings of States)
6._____	Nine groups of continuous States.
7._____	A metropolitan area.
8._____	The complement of the urban population frequently subdivided into farm and nonfarm components.
9._____	Subdivisions of counties (e.g., townships, towns, etc. in selected States)
10._____	A concentration of population which is not legally defined as a city. Shown in the reports only if there are at least 1,000 inhabitants.

List of Geographic Areas

a. Enumeration Districts
b. Rural
c. Census divisions
d. Census tract
e. SMSA
f. Unincorporated place
g. Urbanized area
h. Census regions
i. Block
j. Minor civil divisions

Part B—Using the Definitions

If you were one of the following people, what are some of the census geographic area(s) you would be likely to use in data analysis?

- Planner for a Council of Governments in a major metropolitan area.
- Business person trying to decide whether to open a department store.
- School board discussing alternative integration plans.
- Governor of a state requesting labor force projections.
- Congressperson planning legislation on education needs in the nation.
- Hospital administrator planning for location of a new building.
- Poor student in a university town looking for a place to live.
- Rich professor looking for a place to live.

Exercise II. LEARNING SUBJECTS COLLECTED IN THE 1970 CENSUS

Using figure 2, "Content and Coverage Comparison, 1960–1970" (page 11), check the items which were included in the 1970 Census of Population and Housing.

Subject	In Census in 1970
1. Kitchen or cooking facilities	
2. Employment status	
3. Place of work	
4. Housing vacancy	
5. Dilapidated housing	
6. Air quality	
7. Age, sex, race	
8. Religious affiliation	
9. Income	
10. Death rates	
11. Smoking habits	
12. Expected family size	
13. Unemployment	
14. College graduates	

Exercise III. LEARNING TO READ TABLES

Turn to figure 5 (page 14). This shows part of a table from the State PC(1)-C report ("General Social and Economic Characteristics").

(a) The geographic area shown in the table is:_____

(b) Census data can be used in a community to pinpoint a need for action and to evaluate the effect of particular social programs. The questions below are examples. Assume you are the city planner for Columbia, Maryland and answer the questions using the information provided in figure 5, page 14. (Note: The point of this exercise is to help you learn to read tables in census publications—not to make an analyst out of you—a real planner would study the questions much more thoroughly than you can with the data provided here).

(1) Does Columbia have a significant proportion of its total population from States other than Maryland? From what region of the country are most Columbia residents (in demographic terms: what is the region of origin of the in-migrants)?

(2) Would you say Columbia has a large high school dropout problem?

(3) If Columbia instituted a special program for adults who have not earned a high school diploma, what proportion of the population might attend?

(4) Was unemployment of males a statistically large problem in Columbia in 1970? What proportion of the unemployed are men over age 65?

Exercise IV. FINDING THE DATA AND USING IT

(Refer to pages 5-8)

Publications needed for this exercise:

Part A - Using the Data Finding Guides

Volume I, Characteristics of the Population PC(1), Chapters C and D, a State volume (or PC(1)-C and PC(1)-D for a State).
Index to Selected 1970 Census Reports
Index to 1970 Census Summary Tapes*
Volume I, Housing Characteristics *
* Optional but provides a more complete answer to the question

Part B - Using the Data to Compare Populations in Metropolitan Area

PHC(1)—Census Tract report for a standard metropolitan statistical are

Part C - Using the Data to Compare Populations in the Nation, a State, and a County

Volume 1, Characteristics of the Population, Chapter C (or PC(1)-C).

Part D - Class Project

Volume I, Characteristics of the Population, PC(1)
Volume II, Subject Reports, PC(2). Those related to migration are PC(2)-2A through 2E. (Optional)

Part A - Using the Data Finding Guides

A State representative is interested in the problems of senior citizens. She tells her aide that she wants to draw up some legislation providing extra benefits for the senior citizens in rural areas but first needs to know what problems these people have as indicated by the 1970 Census of Population and Housing.

Question #1

First state the research problem according to geographic levels which might be used and then according to any five variables that might be important. (State the desired variables before looking to see if they are in the Census). Be sure to include some cross-classifications.

Question #2

What is the Census term(s) for senior citizens? How did you find it?

Question #3

Of the variables you listed in Question #1, state what sources you used to decide if they can be found in the publication media of the 1970 Census; if they can be found, list the publication and table number or summary tape count and table number, along with the geographic area you would use.

Question #4

Of the variables you listed (in Question 1 of this part of the exercise) which cannot be found in the Census publications, microfilm, or tapes, write a paragraph describing other sources you would consult to find the data. Would the Census have the data you want if you altered your requirements slightly (i.e., use a different geographic definition - rural rather than nonmetropolitan for example - or change the age categories, etc.)?

Question #5

Now that you are more familiar with the census data provided on senior citizens, are there other tables that might provide interesting information for the State representative?

Part B —Using the Data to Compare Populations in Metropolitan Areas

Census data are often used to compare the characteristics of different population groups. For this exercise, use a census tract report, PHC(1), for an SMSA you live in or in which you are interested. Pick two tracts to compare, basing your selection on characteristics of interest to you. Consider possibilities such as one you have lived in, one with a large black population, one which is outside the central city limits, one with a high median family income, one with a large proportion in group quarters, or one with a relatively large elderly or young population. Fill in the table below with the correct summary statistics for each tract and the SMSA as a whole. Four analytic questions appear on page 25.

Census Statistics for Selected Tracts (data from PHC(1) reports)

Report Table No.	Subject	SMSA	Tract No.—	Tract No.—
P-1	Total population			
P-1	Percent Negro			
P-1	Number of persons under 15 yrs. of age			
P-1	Number of persons 15-64 yrs. of age			
P-1	Number of persons over age 65			
P-1	Average no. of persons per household			
P-1	Number of families			
P-1	Number of families with female head			
P-2	Persons 3-34 yrs. old enrolled in school			
P-2	Percent of persons 16-21 yrs. old, not high school graduates and not enrolled in school (dropouts)			

cont.

Table No.	Subject	SMSA	Tract No. ___	Tract No. ___
P-2	Median years school completed			
P-2	Percent of persons 25 yrs. old and over who are high school graduates			
P-2	Number of persons who moved into the SMSA in 1965 ("residence in 1965 - outside this SMSA")			
P-3	Percent unemployed of males 16 + yrs.			
P-3	Working mothers of children under 6 with husbands present in household			
P-3	Total employed persons 16 yrs. old and over			
P-3	Two principal industries of the employed (list)			
P-4	Median family income			
P-4	Percent of families in poverty			
P-4	Percent of persons in poverty			
P-4	Percent of male heads of families under 65 in poverty and in labor force (working poor)			
P-4	Median value of owner occupied homes of families in poverty			

cont.

Table No.	Subject	SMSA	Tract No. ___	Tract No. ___
P-4	Median monthly rent of rental occupied homes of families in poverty			
H-1	Housing units lacking some or all plumbing facilities			
H-1	One-person households			
H-1	Number of housing units with more than one person per room			
H-1	Median value of owner occupied units			
H-1	Median monthly rent of renter occupied units			
H-2	Number of housing units in 1- or 2-unit structures			
H-2	Number of housing units built after 1959			
H-2	Number of units without central heat			
H-2	Number of households with no automobile			
H-2	Number of households with two or more automobiles			

Questions to Part B (answer question #1 and two of the remaining three).

1. Write a short description comparing the two census tracts and the SMSA. (Look for inter-relationships in the data — don't just catalogue the numbers).

2. If you worked for a bus company which is looking for likely new routes, what types of decisions might you make based on the information about the two tracts?

3. If you were a city planner charged with locating a playground and a public health facility, what decisions would you make about the suitability of the two tracts for these facilities? What other service facilities might be indicated by the tract characteristics?

4. Compute the standard error for any two variables from sample data. (See Appendix C, pages App. 17-19 in the census tract report).

PART C - Using the Data to Compare Populations in the Nation, a State, and a County.

Use a PC(1)-C report, "General Social and Economic Characteristics" for your State. Compare the Nation, the State, and a county by completing the following table (question on page 26):

SUBJECT	U. S.	STATE	COUNTY
RESIDENCE			
Total Population	203,210,158		
Percent Rural	26.5		
Native Population:	193,560,766		
Percent residing in State of birth	68		
EDUCATION			
Median School Years Completed*	12.1		
Percent High School Graduates*	52.3		

cont. - Part C

SUBJECT	U. S.	STATE	COUNTY
INCOME			
Median Family Income	$9,590		
Percent Families w/Income Less than Poverty Level	10.7		
EMPLOYMENT			
Percent Population in Labor Force**	58		
Percent Workers in County of Residence	74.8		
Percent Workers in White Collar Occupations	48.2		
Percent Workers Employed by Government	16.1		

*Persons 25 years old and over.
**Persons 16 years old and over.

Question for PART C:

Write a paragraph describing the similarities and differences of the areas. To what kind of public policies and programs might these data relate? Do any of the data merit further exploration?

PART D — Class Project

You are all members of a council on regional population and economic growth policies. The council was chosen by a group of State governors to represent the following interest groups:

Blacks
Females
Spanish-Americans
Banks
Labor
Rural poor
Corporate farmers
Urban Poor
Elderly
Environmentalists
Developers of condominiums
Developers of second homes for recreation
Small business owners
Utility companies
Planned Parenthood Federation

In addition, a university demographer was hired as a consultant to the council.

Choose class members to represent these interests. The governors have directed the council to write a report describing the characteristics of migrants to the area, the current population distribution, and the implications of these two aspects for the likely composition of the population in the future in terms of the impact on population and economic change. In this case, the governors are known to believe a priori that population and economic growth are desirable.

Working in groups, define your data needs; for those for which there are census data, list the publication and table number or summary tape count. If you have sufficient time, try to develop a set of recommendations to give to the governors (there may have to be minority reports!).

Are there data which you cannot find which you feel are absolutely essential? Which decisions in the report of the council might be based on objective data and which on subjective factors?

ANSWERS TO EXERCISES I - IV-A

Exercise I

Part A

1. i	3. a	5. h	7. e	9. j
2. d	4. g	6. c	8. b	10. f

Part B

The following are possible answers but not the only ones:

Planner for COG - SMSA, tracts, counties, urbanized area, central city, unincorporated places
Business person - tracts, ED/BG
School board - tracts, ED/BG, blocks
Governor - State, region, Nation, division, counties, SMSA's
Congressperson - Nation, region, division, urban/rural, congressional districts
Hospital administrator - tracts, ED/BG, blocks, places, counties
Poor student - tracts, ED/BG, blocks
Rich professor - tracts, ED/BG, urbanized area, central city, rural nonfarm, urban fringe

Exercise II

The following subjects were in the 1970 Census:

2. Employment status
3. Place of work
4. Housing vacancy
7. Age, sex, race
9. Income
13. Unemployment (employment status)
14. College graduates (years of school completed)

ANSWERS TO EXERCISES (con't)

Exercise III

(a) Places 2,500 to 10,000 for the State of Maryland in 1970

(b) (1) This question can be answered from the information under "place of birth" (or "lifetime migration") and "residence in 1965"(or "recent migration"). Place of birth shows that 34% (2963/8701) of the population was born in the State of Maryland and also lived there in 1970 ("born in State of residence"). Almost six out of ten (5106/8701) Columbian 1970 residents were born in a State outside of Maryland but had moved to Columbia, Maryland by 1970 (note: the rest were foreign-born, did not report their State of birth, or were born abroad, at sea, etc). Most were born in the Northeast or the South:

Northeast	(2200/8701)	25%
North Central	(995/8701)	11
South	(1704/8701)	20
West	(207/8701)	2

From "residence in 1965" we learn that less than one percent (647/7462) lived in the same house in Columbia in 1965 and 1970. About 36% (2658/7462) lived someplace in Maryland in 1965 and moved to Columbia by 1970 while 42% moved to Columbia from a State outside Maryland between 1965 and 1970. The recent in-migrants from other States were primarily from the Northeast and the South:

Northeast	(1283/7462)	17%
North Central	(721/7462)	10
South	(974/7462)	13
West	(154/7462)	2

By either the lifetime or recent migration measure, most Columbians are from out-of-State and the planner would probably want to study further the characteristics of those migrants.

(2) The high school dropout problem can be approximated by the percent of those age 14-17 not enrolled in school ("school enrollment"):

Age	Percent Enrolled	Percent not enrolled (dropout approximation)
14-15	98.8	1.2
16-17	99.9	0.1

(3) "Years of school completed" for persons over age 25 indicates that 349 people have less than a high school diploma in Columbia—less than one percent of the population over 25. In fact, half the population has at least four years of college (median education completed).

(4) In 1970, 26 males (1.1%) over age 16 were unemployed while 2,257 were employed. The second part of the question is a trick—it cannot be answered from the information given. Some may think that "unemployed" has the same meaning as "not in the labor force" but this is not the case. The Census Bureau consistently uses the same phrases and terms for particular meanings. Users should always read the definitions of the terms they are interested in and these definitions can be found in Appendices A and B of the 1970 Census reports.

Exercise IV

Part A

1. Possible Choices for Geographic Levels - Some Advantages and Disadvantages

(a) Rural Areas

Advantages - Data are published for this level.

Disadvantages - Rural areas are in both metropolitan and nonmetropolitan places, so it is difficult to control for central city influence.

(b) Nonmetropolitan Areas

Advantages - Data are published at this level. Excludes population which is economically and socially integrated with a central city.

Disadvantages - Includes urban population (although the urban population is not dense enough or large enough to meet SMSA criteria).

(c) Counties in which 50% (or some other specified degree) of the population is classified rural.

Advantages - Allows for the study of characteristics on a continuum (those in 100% rural counties may be different from those with considerable "urban influence.") Also, considerable data available for counties.

Disadvantages - The data are not tabulated this way and have to be specially tabulated, although use of the computer eases this task to manageable proportions.

(d) Places 1,000 - 2,500 Inhabitants

Advantages - Some data tabulated for this category.

Disadvantages - Excludes those people in places under 1,000 population.

Variables of Interest (examples only - many possible choices)

65 years old and over by residence in a nursing home
65 years old and over by poverty status
65 years old and over by lacking some or all plumbing facilities by wood fuel used
65 years old and over by median weeks worked
65 years old and over by contract rent over $100 by presence of children under 18
65 years old and over by owner occupied homes valued less than $15,000

2. The Census Bureau does not tabulate data for "senior citizens" but does use age categories such as "persons 65 years old and over." A systematic way to find the term is to use the "cross-reference guide" in the Index to Selected 1970 Census Reports. In fact, if the student reads the "Step-by-Step Approach to the Index," (s)he will find that "senior citizen" is a specific example. Of course, it is also acceptable (although one must rely more on serendipity) to use the "Aha!" approach of looking at the subjects listed in the "Table Finding Guide" at the front of the publications and finding something that might fit.

3. Sources:

(a) Table Finding Guide - front of publications
(b) Index to Selected 1970 Census Reports
(c) Index to 1970 Census Summary Tapes
(d) 1970 Census Users' Guide, Part II
(e) For other reports not listed in either Index (from b or c above), DAD #39, "Reports Related to the 1970 Census of Population and Housing" is a good source. It describes the subject reports [PC(2) and HC(7)], for example. Students might wish to see if the particular subject reports, PC(2)-4E ("Persons In Institutions and Other Group Quarters") and HC(7)-2 ("Housing of Senior Citizens") have anything that would be helpful to them. Students should also check figure 2 (contents of the 1970 Census) and/or the questionnaire to be sure the variables of interest were asked in the census.

4. Check the Appendix of the Statistical Abstract which lists other government data sources. Also check the American Statistics Index: 1974; the Directory of Federal Statistics for States: 1967; and Directory of Federal Statistics for Local Areas: A Guide to Sources, 1966.

No answers are provided for Exercises IV B,C,D.

FOR FURTHER INFORMATION

To Obtain Information About Census Products and Services:

Data Access and Use Staff, Data User Services Division, Bureau of the Census,
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To Obtain or Order:

- Computer Tape Products
- Census Maps
- Special Tabulations
- Microfilm (1st Count and 5th Count-county and MCD/CCD Tabulations)

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Bureau of the Census
Washington, D.C. 20233
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- Microfiche of Final Printed Reports ..... Bureau of the Census Library
Washington, D. C. 20233

- Data User News ..... Subscriber Services Section
(Publications)
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Bureau of the Census
Washington, D.C. 20233

To Obtain Order Forms For Reports or to Order Reports From the 1970 Census:

Subscriber Services Section (Publications), Bureau of the Census,
Washington D.C. 20233.

Printed reports from the 1970 Census also may be reviewed at the U.S. Department of Commerce district offices listed on the back cover.

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NEW YORK, 10007, 41st Floor, Federal Office Bldg., 26 Federal Plaza, Foley Sq. (212) 264-0634.

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